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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/327,351	06/05/1999	STANISLAV I. IONOV	PD-970411	5316
20991	7590	10/08/2004	EXAMINER	
THE DIRECTV GROUP INC			PHAN, HANH	
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DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/327,351

Applicant(s)

IONOV ET AL.

Examiner

Hanh Phan

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 08/06/2004.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 09/313,428 (Ionov et al)(cited by applicant). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-33 of the instant application are encompassed by claims 1-22 of copending Application No. 09/313,428 (Ionov et al).

Regarding claims 1, 22, 30 and 31, Ionov et al. (copending Application No. 09/313,428) discloses a satellite constellation comprising:

a plurality of satellites, each of the satellites having an RF ground link for communicating with a ground station and an optical link for communication with at least one of the plurality of satellites;

each of the satellites having a reconfigurable optical transmitter and a reconfigurable optical receiver for sending and receiving data streams, each reconfigurable optical transmitter having an optical carrier associated therewith;

the plurality of satellites arranged to have a first subset of satellites, the first subset of satellites configured to communicate therebetween as a first local area network over a landmass;

the plurality of satellites arranged to have a second subset of satellites having at least one satellite different than that of the first subset and at least one second satellite the same as the first subset, the second subset of satellites are configured to communicate therebetween as a second local area network over the landmass (see claims 1 and 11-22 of Ionov).

Regarding claims 2, 12, and 23, Ionov discloses each of the plurality of satellites comprises a communications table (see claim 10 of Ionov).

Regarding claims 3, 13, 24 and 32, Ionov discloses the communications table has plurality of routes for communicating between satellites in the first subset (see claim 10 of Ionov).

Regarding claims 4, 5, 15, 16, 25 and 26, Ionov discloses the reconfigurable optical transmitter comprises an array of laser diodes (see claims 1 and 11-22 of Ionov).

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Regarding claims 7 and 8, Ionov discloses the satellites are in low earth orbit (see claims 1 and 11 of Ionov).

Regarding claim 9, Ionov discloses the first and second subsets are aligned with a landmass (see claims 1 and 11 of Ionov).

Regarding claims 11, 18, 28 and 29, Ionov discloses a global communications system comprising:

- a plurality of satellites spaced about the earth;

- a first subset of the plurality of satellites forming a local area network over a landmass, the first subset of satellites having a first plurality of optical carriers assigned thereto for intercommunication;

- the first subset having a second plurality of optical carriers assigned for communicating with other satellites outside of the subset (see claims 1 and 11-22 of Ionov).

Regarding claim 14, Ionov discloses each of the satellites comprises a reconfigurable optical transmitter and a reconfigurable optical receiver (see claim 15 of Ionov).

Regarding claims 17 and 21, Ionov discloses a method of communicating within a satellite communications system comprising the steps of:

- deploying a plurality of satellites;

- grouping a first subset of the plurality of satellites into a first local area network over a first landmass, the first subset having fewer than the plurality of satellites ;

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forming a plurality of routes between the satellites in the first local area network;
and

assigning an optical carrier for each route (see claims 1 and 11-22 of Ionov).

Regarding claims 19 and 20, Ionov discloses wherein the step of assigning an optical carrier comprises the step of obtaining the optical carrier and route from a respective optical wavelength selector and communication table and the step of assigning comprises the step of reusing the optical carriers (see claims 11-22 of Ionov).

Regarding claim 33, Ionov discloses the first landmass and second landmass are coincident (see claims 1 and 11 of Ionov).

Regarding claims 6 and 27, Ionov discloses the reconfigurable optical receiver is one from the group consisting of a Fabry-Perot filter, a wavelength division multiplexer, and a fiber grating based optical switch in order to select and distribute the signals to the user terminals (see claim 14 of Ionov).

Regarding claim 10, Ionov discloses the subset comprises seven satellites using three optical carriers (see claims 1 and 11-22 of Ionov).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1, 9, 11, 14, 17, 18, 22, 28-31 and 33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 09/327,767 (Ionov et al)(cited by applicant). Although the conflicting claims are not identical, they are not patentably

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distinct from each other because the limitations recited in claims 1-33 of the instant application are encompassed by claims 1-17 of copending Application No. 09/313,428 (Ionov et al).

Regarding claims 1, 22, 30 and 31, Ionov et al. (copending Application No. 09/313,428) discloses a satellite constellation comprising:

a plurality of satellites, each of the satellites having an RF ground link for communicating with a ground station and an optical link for communication with at least one of the plurality of satellites;

each of the satellites having a reconfigurable optical transmitter and a reconfigurable optical receiver for sending and receiving data streams, each reconfigurable optical transmitter having an optical carrier associated therewith;

the plurality of satellites arranged to have a first subset of satellites, the first subset of satellites configured to communicate therebetween as a first local area network over a landmass;

the plurality of satellites arranged to have a second subset of satellites having at least one satellite different than that of the first subset and at least one second satellite the same as the first subset, the second subset of satellites are configured to communicate therebetween as a second local area network over the landmass (see claims 1-17 of Ionov).

Regarding claim 9, Ionov discloses the first and second subsets are aligned with a landmass (see claims 1-17 of Ionov).

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Regarding claims 11, 17, 18, 28 and 29, Ionov discloses a global communications system comprising:

a plurality of satellites spaced about the earth;

a first subset of the plurality of satellites forming a local area network over a landmass, the first subset of satellites having a first plurality of optical carriers assigned thereto for intercommunication;

the first subset having a second plurality of optical carriers assigned for communicating with other satellites outside of the subset (see claims 1-17 of Ionov).

Regarding claim 14, Ionov discloses each of the satellites comprises a reconfigurable optical transmitter and a reconfigurable optical receiver (see claims 1-17 of Ionov).

Regarding claim 33, Ionov discloses the first landmass and second landmass are coincident (see claims 1-17 of Ionov).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 9, 11-26, and 28-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Wainfan et al (US Patent No. 6,032,041).

Regarding claims 1, 22, 30 and 31, referring to Figures 1-4, Wainfan discloses a satellite constellation comprising:

a plurality of satellites (i.e., constellation of satellites 14 around the earth, Figs. 2 and 3), each of the satellites having an RF ground link for communicating with a ground station and an optical link for communication with at least one of the plurality of satellites (Figs. 1 and 4);

each of the satellites having a reconfigurable optical transmitter and a reconfigurable optical receiver for sending and receiving data streams (i.e., intersatellite links 36, Fig. 4, col. 4, lines 28-42 and col. 5, lines 14-16, col. 6, lines 52-60), each reconfigurable optical transmitter having an optical carrier associated therewith;

the plurality of satellites (Figs. 1-3) arranged to have a first subset of satellites, the first subset of satellites configured to communicate therebetween as a first local area network over a landmass;

the plurality of satellites (Figs. 1-3) arranged to have a second subset of satellites having at least one satellite different than that of the first subset and at least one second satellite the same as the first subset, the second subset of satellites are configured to communicate therebetween as a second local area network over the landmass (Figs. 1-4, col. 5, lines 14-16).

Regarding claims 2, 12, and 23, Wainfan further teaches each of the plurality of satellites comprises a communications table (i.e., routing unit 38)(Fig. 4).

Regarding claims 3, 13, 24 and 32, Wainfan further teaches the communications table has plurality of routes for communicating between satellites in the first subset (Fig. 4).

Regarding claims 4, 5, 15, 16, 25 and 26, Wainfan also teaches that the reconfigurable optical transmitter comprises an array of laser diodes (i.e., intersatellite links 36, Fig. 4, col. 6, lines 52-60).

Regarding claim 9, Wainfan further teaches the first and second subsets are aligned with a landmass (Figs. 1-4).

Regarding claims 11, 18, 28 and 29, referring to Figures 1-4, Wainfan discloses a global communications system comprising:

- a plurality of satellites spaced about the earth (i.e., constellation of satellites 14 around the earth, Figs. 1-4);

- a first subset of the plurality of satellites (Figs. 1-4) forming a local area network over a landmass, the first subset of satellites having a first plurality of optical carriers assigned thereto for intercommunication (Fig. 4, col. 4, lines 28-50 and col. 5, lines 14-16);

- the first subset having a second plurality of optical carriers assigned for communicating with other satellites outside of the subset (Fig. 4, col. 6, lines 52-60).

Regarding claim 14, Wainfan further teaches each of the satellites comprises a reconfigurable optical transmitter and a reconfigurable optical receiver (Fig. 4).

Regarding claims 17 and 21, referring to figures 1-4, Wainfan discloses a method of communicating within a satellite communications system comprising the steps of:

deploying a plurality of satellites (i.e., constellation of satellites 14 around the earth, Figs. 1-4);

grouping a first subset of the plurality of satellites (Figs. 1-3) into a first local area network over a first landmass, the first subset having fewer than the plurality of satellites;

forming a plurality of routes between the satellites in the first local area network (Fig. 4); and

assigning an optical carrier for each route (Fig. 4, col. 4, lines 28-50 and col. 5, lines 14-16 and col. 6, lines 52-60).

Regarding claims 19 and 20, Wainfan further teaches wherein the step of assigning an optical carrier comprises the step of obtaining the optical carrier and route from a respective optical wavelength selector and communication table and the step of assigning comprises the step of reusing the optical carriers (Fig. 4).

Regarding claim 33, Wainfan further teaches the first landmass and second landmass are coincident (Figs. 1-4).

Response to Arguments

7. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

Hanh Phan
Hanh Phan
Patent Examiner
Art Unit 2633
10/07/04